REMARKS/ARGUMENTS

Applicants respond herein to the Office Action of January 24, 2011.

Claims 40, 43-57 and 60-78 are in the application with the limitations of claims 42 and 59 having been incorporated into claims 40 and 57 respectively. Claims 1-39 were previously canceled and claims 41-42 and 58-59 are presently canceled. Claims 51-56 and 68-78 have been withdrawn.

Claims 40-47 and 57-64 were rejected under 35 U.S.C. §103(a) as being unpatentable over Takashi et al. (JP 2003-005826) and Katsui et al. (US 6,772,045). Claims 48-50 and 65-67 were rejected under 35 U.S.C. §103(a) as being unpatentable over Takashi et al. in view of Katsui et al. and further in view of Konishi et al. (US 6,145,519).

With the above amendments, claims 40 and 57 each specifies five control elements to "detect a processing abnormality based on a combined effect of two or more among a) 'the number of revolutions of a substrate,' b) 'the temperature of the cleaning solution," c) 'the flow rate of the cleaning solution,' d) 'the concentration of the cleaning solution,' and e) 'cleaning solution discharge time,' in the cleaning solution spread step." The control elements are not evaluated separately and individually.

Thus, even if any of the above five control elements is found to be different from the reference value, it is not immediately judged as a processing abnormality. Instead, it is required for the claimed abnormality condition to be based on a combination of two or more elements. This provides a more accurate operation with the performance of an abnormality detection. For example, even if the cleaning solution discharge time is shorter than the reference value, if the flow rate of the cleaning solution is larger than the reference value, there is a compensation to judge whether the cleaning solution is supplied to a reference value. As a result, if the reference value is met, there is no detection of a processing abnormality (see page 22, line 25 to page 23, line 13 of the specification). However, even if each of the control elements is close to the reference value, if a combination of two or more elements is judged not to be at the reference value, a processing abnormality may still be detected.

With respect to the cited reference, although Takashi et al. discloses judging whether or not failure exists by evaluating the condition of the temperature and the humidity, it does not teach the presently claimed requirement of "detecting a processing abnormality based on a

combination of two or more among the number of revolutions of a substrate, the temperature of the cleaning solution, the flow rate of the cleaning solution, the concentration of the cleaning solution, and cleaning solution discharge time" at all.
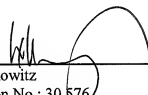
Though the newly cited Katsui et al. reference discloses determining cleaning timing from a plurality of parameters, it does not teach "detecting a processing abnormality based on a combination of two or more among the number of revolutions of a substrate, the temperature of the cleaning solution, the flow rate of the cleaning solution, the concentration of the cleaning solution, and cleaning solution discharge time" at all. Such combination of parameters consideration is not disclosed in Konishi et al. at all. The presently claimed operation and system are accordingly not disclosed or derivable from any or all of the cited references.

Accordingly, the Examiner is respectfully requested to reconsider the application, allow the claims as amended and pass this case to issue.

Respectfully submitted,

THIS CORRESPONDENCE IS BEING
SUBMITTED ELECTRONICALLY
THROUGH THE PATENT AND
TRADEMARK OFFICE EFS FILING
SYSTEM ON May 24, 2011.

Max Moskowitz
Registration No.: 30,576
OSTROLENK FABER LLP
1180 Avenue of the Americas
MM:lac
New York, New York 10036-8403
Telephone: (212) 382-0700